

# Technical Information

No. FO 4469

Edition: 02/2013 - subject to change

Supersedes: Edition 08/2009

Status: valid

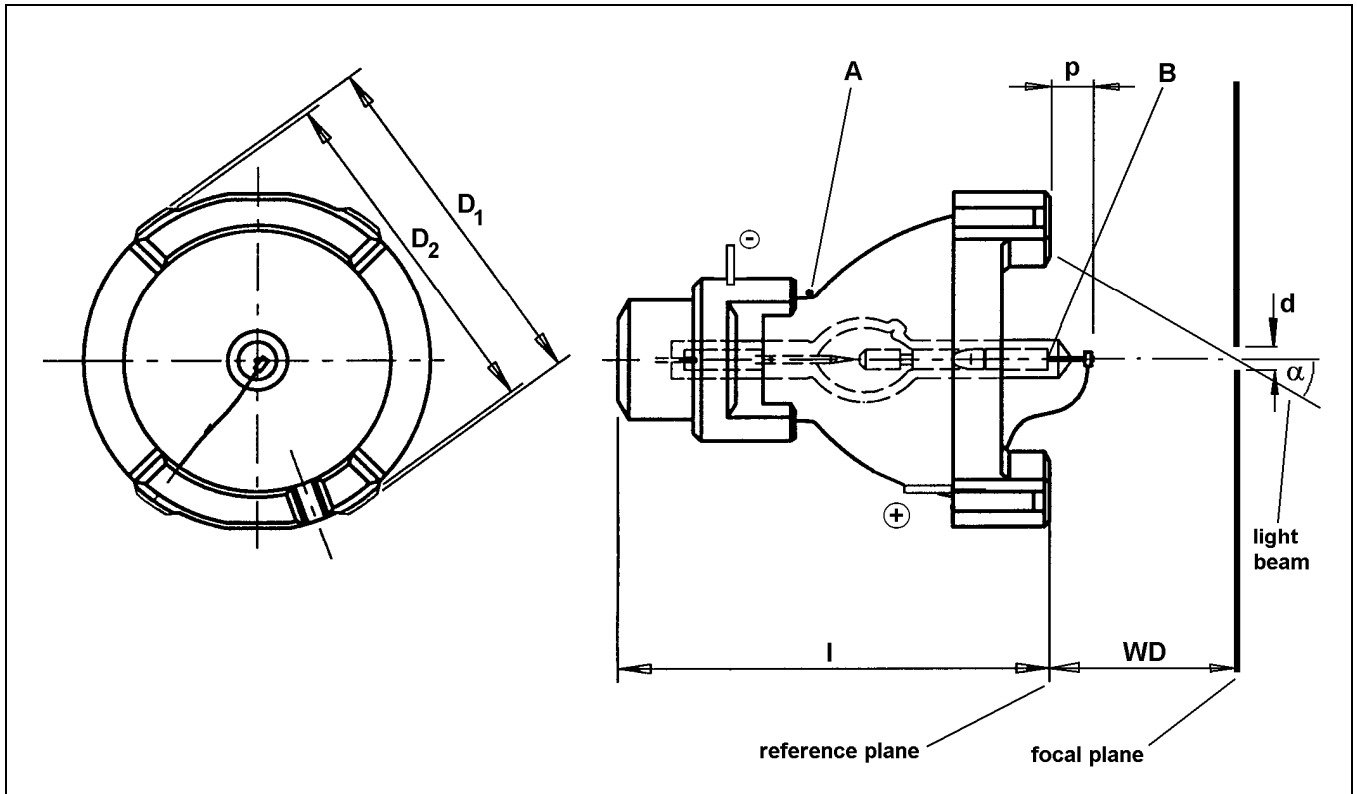
# Xenon Short Arc Reflector Lamp

## XBO<sup>®</sup> R 100 W/45 OFR



### ■ Product description

- Xenon discharge lamp for DC operation
- Short arc, high pressure
- Focusing reflector
- Dichroic coating for suppressed IR-output
- For light guides with up to 8 mm diameter
- Pin connectors
- Ozone-free
- Hot re-strikeable



### ■ Technical data

Rated lamp current	A	7.2
Rated lamp wattage	W	100
Initial voltage range	V	12 - 14
Ignition voltage (cold/hot)	kV	max. 20 / max. 20
Colour temperature	K	approx. 6000
Colour rendering index	R <sub>a</sub>	> 90
Beam-to-axis angle $\alpha$	deg	max. 22.4
Length l	mm	max. 77
Length p	mm	max. 6
Reflector diameter D <sub>1</sub>	mm	max. Ø 67.0
Diameter D <sub>2</sub>	mm	Ø 64.0 <sub>-0.3</sub>
Electrical connectors		plus pole: pin, Ø 2.0 mm; minus pole: pin, Ø 2.5 mm

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### ■ Performance data at rated current

Working distance WD	mm	45
Initial aperture lumens	lm	• min. 300 at d = Ø 3 mm • min. 400 at d = Ø 5 mm
Declared service life <sup>1)</sup>	h	500

### ■ Mounting

Mounting	rim mounting; for details see Technical Information No. FO 4913
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### ■ Operation conditions

Burning position	horizontal ± 20° (p 20)
Temperature at point A	°C max. 250 allowed; 175 - 200 optimum
Temperature at point B	°C max. 350 allowed; 200 - 250 optimum
Cooling	Forced cooling required, air flow velocity and distribution to be chosen in such a way as to ensure proper temperatures at points A and B
Current operation range	A min. 7.0, max. 7.4
Power operation range	W min. 85, max. 115
Polarity	proper polarity to be observed

The XBO<sup>®</sup> R 100 W/45 OFR can either be operated on standard ballasts or on electronic power supplies.

### ■ Safety Instructions

- In its cold state the lamp has a high internal pressure (as much as 20 bar). The lamp is extremely unlikely to explode but, the possibility cannot be entirely ruled out. Therefore, when handling it, observe precautionary measures laid down in the safety enclosure accompanying each lamp.
- During operation, the internal pressure is around three times higher than in the cold state. Even so, an explosion is extremely unlikely but, the possibility cannot be entirely ruled out.
- XBO<sup>®</sup> R 100 W/45 OFR must only be operated in purpose-built lamp housings which prevent direct viewing of the arc and in case of lamp bursting refrain lamp particles.

### ■ Additional documentation

- Guidelines for Mounting and Centering of Reflector Discharge Lamps (1); Technical information No. FO 4913
- Guidelines for Power Supplies and Ignitors for Xenon Short Arc Lamps Photo Optics No. FO GL-4
- Cooling Scheme; Technical Information No. FO 4935

<sup>1)</sup> Operation time after which aperture lumens can decrease to 50% of initial value; switching cycle 1 hour on / 1 hour off